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United States  
Department of  
Agriculture

Soil  
Conservation  
Service

Boise,  
Idaho

# Idaho Water Supply Outlook



April 1, 1987

DEC 27 '83

LIBRARY



# Foreword

## How Forecasts Are Made

Most of the annual streamflow in the Western United States originates as snowfall. This snowfall accumulates high in the mountains during winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Predictions are based on careful measurements of snow water equivalent at selected index points. Precipitation, temperature, soil moisture and antecedent streamflow data are viewed in conjunction with snowpack data to prepare runoff forecasts. This report presents a comprehensive picture of water supply outlook conditions for areas dependent upon surface runoff. It includes selected streamflow forecasts, summarized snowpack and precipitation data, reservoir storage data and narratives describing current conditions.

Streamflow forecasts are cooperatively generated by Soil Conservation Service and National Weather Service hydrologists. Forecasts become more accurate as more data affecting runoff becomes known. For this reason, forecasts are issued that reflect three future precipitation conditions — Below Normal, Average, and Above Normal. These forecasts are termed reasonable minimum, most probable, and reasonable maximum. Actual streamflow can be expected to fall between the lower and upper forecast values eight out of ten years.

Snowpack data are obtained by using a combination of manual and automated measurement methods. Manual readings of snow depth and water equivalent are taken at locations called snow courses on a monthly or semi-monthly schedule during the winter. In addition, snow water equivalent, precipitation, temperature, and other parameters are monitored on a daily basis and transmitted via radio telemetry to central data collection facilities. Both monthly and daily data are used to project snowmelt runoff.

## For More Information

Copies of Monthly Water Supply Outlook Reports and other reports may be obtained from the states listed below. Because of the limited space, snow survey measurements are not published in monthly reports. An annual snow survey data summary is published by the Soil Conservation Service for each of the western states. Historical snow survey data may be obtained at those same offices.

STATE	ADDRESS
Alaska	201 East 9th Ave., Suite 300, Anchorage, AK 99501-3687
Arizona	201 East Indianola, Suite 200, Phoenix, AZ 85012
Colorado	2490 West 26th Ave., Denver, CO 80211
New Mexico	517 Gold Ave. S.W., Room 3301, Albuquerque, NM 97102
Idaho	304 North 8th Street, Room 345, Boise, ID 83702
Montana	10 East Babcock, Room 443, Federal Building, Bozeman, MT 59715
Nevada	1201 Terminal Way, Room 219, Reno, NV 89502
Oregon	1220 Southwest 3rd Ave., Room 1640, Portland, OR 97208
Utah	4402 Federal Building, 125 South State Street, Salt Lake City, UT 84147
Washington	360 U.S. Court House, Spokane, WA 99201
Wyoming	Federal Building, 100 East "B" Street, Casper, WY 82601

In addition to state reports, a Water Supply Outlook for the Western United States is published by the Soil Conservation Service and National Weather Service monthly, January through May. Reports may be obtained from the Soil Conservation Service, West National Technical Center, 511 Northwest Broadway, Room 547, Portland, OR 97209.

Published by other agencies:

Water Supply Outlook Reports prepared by other agencies include: California — Snow Survey Branch, California Department of Water Resources, P.O. Box 388, Sacramento, CA 95802; British Columbia — The Ministry of Environment, Water Investigations Branch, Parliament Buildings, Victoria, British Columbia, V8V 1X5; Yukon Territory — Department of Indian and Northern Affairs, Northern Operations Branch, 200 Range Road, Whitehorse, Yukon Territory, Y1A 3V1; Alberta, Environment Technical Services Division, 9820 106th St., Edmonton, Alberta T5K 2J6.

# **Idaho Water Supply Outlook**

**and**

## **Federal — State — Private Cooperative Snow Surveys**

### **Issued by**

Wilson Scaling  
Chief  
Soil Conservation Service  
Washington, D.C.

### **Released by**

Stanley N. Hobson  
State Conservationist  
Soil Conservation Service  
Boise, Idaho

### **Prepared by**

Gerald A. Beard  
Data Collection Office Supervisor  
Soil Conservation Service  
Rm. 345, 304 N. 8th Street  
Boise, Idaho 83702

### **In cooperation with**

A. Kenneth Dunn  
Director  
State of Idaho  
Department of Water Resources  
Boise, Idaho

## TABLE OF CONTENTS

STATE STREAMFLOW PROSPECTS MAP .....	1
STATE GENERAL OUTLOOK.....	2
BASIN OUTLOOK AND CONDITIONS	
UPPER COLUMBIA BASIN.....	4
CLEARWATER AND SALMON RIVER BASIN .....	6
WEISER, PAYETTE, AND BOISE RIVER BASIN .....	8
BIG WOOD, LITTLE WOOD, BIG LOST, AND LITTLE LOST RIVER BASIN .....	10
WILLOW CREEK, BLACKFOOT, UPPER SNAKE, AND PORTNEUF RIVER BASIN.....	12
SOUTHSIDE SNAKE RIVER BASIN.....	14
GREAT BASIN .....	16
SNOW DATA MEASUREMENTS .....	18
ADDITIONAL INFORMATION .....	21

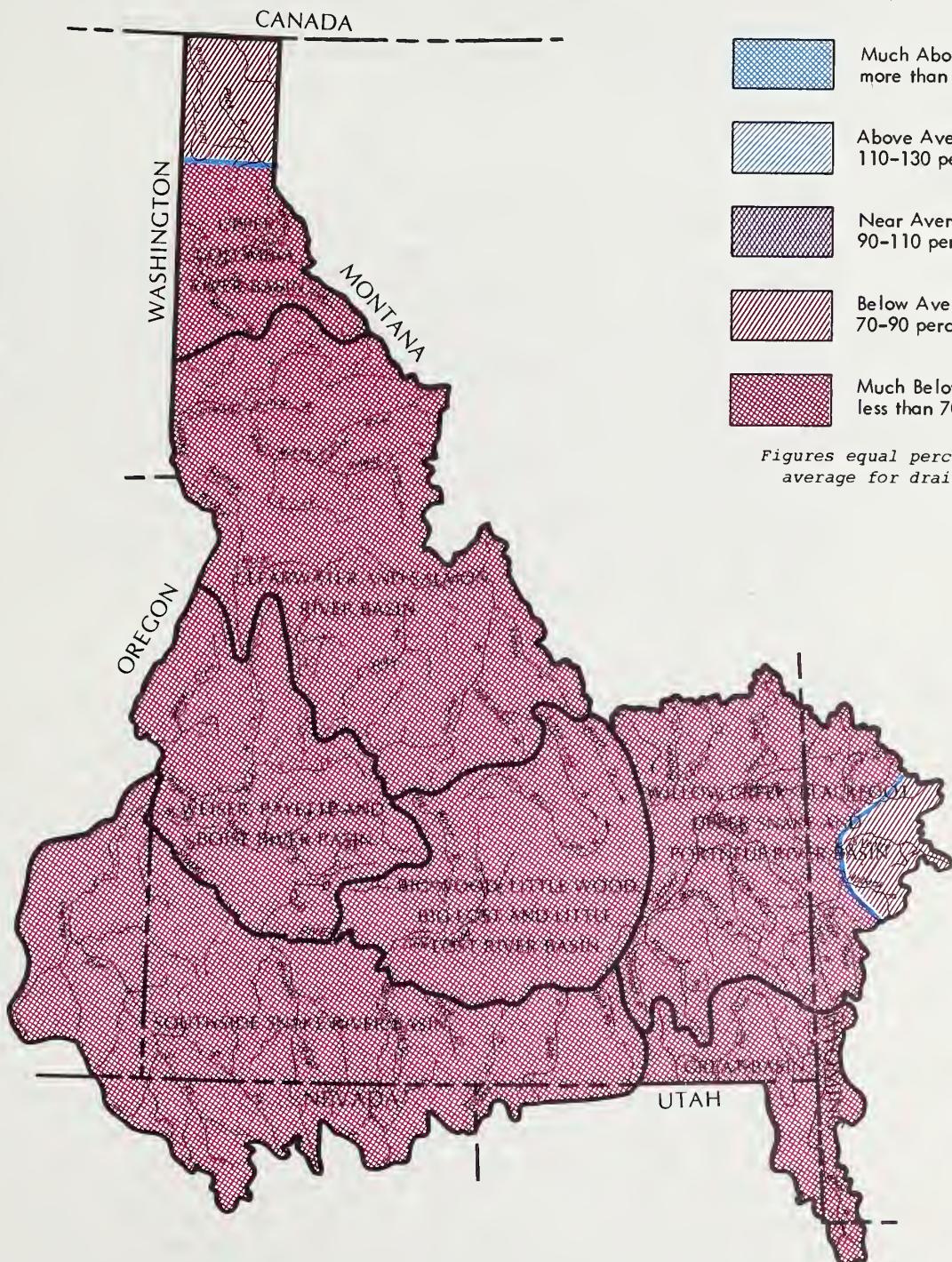
STREAMFLOW PROSPECTS  
IDAHO

0 25 50 75 100 MI  
0 50 100 150 KM

## LEGEND

	Much Above Average more than 130 percent
	Above Average 110-130 percent
	Near Average 90-110 percent
	Below Average 70-90 percent
	Much Below Average less than 70 percent

Figures equal percent of  
average for drainage.



## GENERAL OUTLOOK

### SUMMARY:

MUCH OF IDAHO'S MOUNTAIN SNOWPACK IS THE SECOND LOWEST ON RECORD FOR APRIL 1. STREAMFLOWS IN THE SOUTHERN HALF OF THE STATE ARE EXPECTED TO BE NEAR OR JUST ABOVE THE LOWEST ON RECORD. SOME MAJOR IRRIGATION RESERVOIRS WILL NOT FILL TO CAPACITY. IRRIGATORS WITHOUT BENEFIT OF RESERVOIR STORAGE SHOULD EXPECT WATER SHORTAGES THIS SUMMER. UNLESS SOUTHERN AND CENTRAL IDAHO RECEIVE HEAVY RAINS THIS SPRING AND SUMMER, THE WATER SUPPLY OUTLOOK FOR 1987 IS VERY BLEAK. SEE THE LAST PAGES OF THIS BULLETIN FOR SUGGESTED WATER CONSERVATION MEASURES.

### SNOWPACK:

April 1 snow surveys show Idaho's snowpack conditions remain below to well below normal throughout the state. The highest snowpacks are in northern Idaho where conditions range from 57% of average on the Salmon River basin to 81% of average on the Priest River drainage. The central Idaho mountains report the lowest snowpack conditions in the state with most basins ranging from 32 to 50% of normal. Snowpacks in southern and eastern Idaho and in the upper Snake River basin in Wyoming generally range from 50 to 69% of average. Mild temperatures and rainfall during early March triggered low and middle elevation snowmelt throughout the state. If mild weather conditions continue, snowpacks are expected to melt much earlier than normal.

### PRECIPITATION:

During the first two weeks of March a warm moist southwesterly flow prevailed over the state. Almost all of March's precipitation fell during this period, with some valley stations reporting 24 hour totals in the one-half to one inch range. This pattern changed by midmonth to a dry and unusually cold northwesterly flow. With the change in airflow, the precipitation ended with only light and spotty amounts being reported during the last two weeks. The Panhandle received the most rain with Porthill reporting 200% of normal. Southeastern Idaho was the only part of the state reporting below normal precipitation, with Pocatello at 89% and Grace at 78% of normal. The state as a whole reported 125% of normal precipitation for the month of March. Temperatures were unusually high during the first two weeks of March with several record highs being set. By the end of the month, record lows were being recorded. On the average, the state ended up above normal for the month. The southeast had the highest departure from normal temperatures with Pocatello at plus 4 degrees.

## RESERVOIRS:

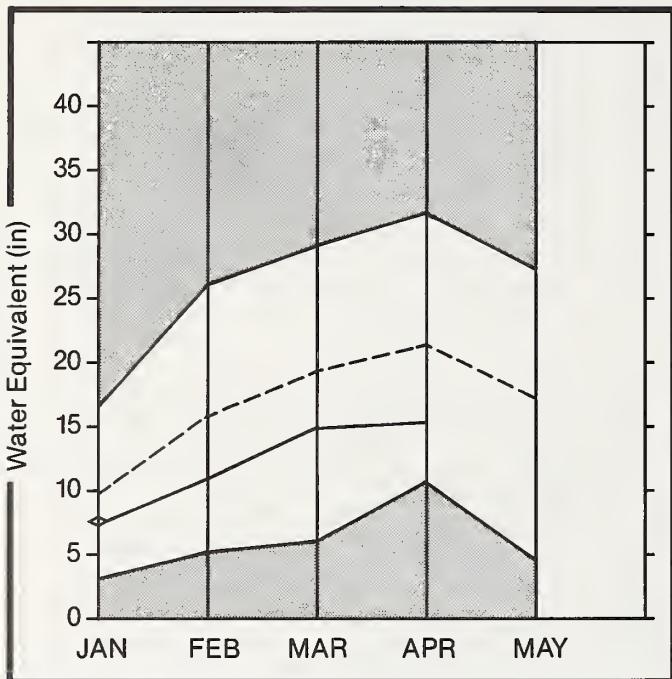
Reservoir storage across the state is generally above average for April 1, ranging from 46% of average at Lake Pend Oreille to 184% at Brownlee reservoir. For 28 reservoirs in the state, April 1 storage is 112% of normal and 70% of capacity. Most reservoirs in the state are expected to fill this spring, with the exception of the Boise system, Magic, and Carey Valley reservoirs. Irrigation demands may exceed the available storage in some reservoirs by late summer, and irrigators may experience water shortages or rationing. Stored irrigation water will be relied on heavily this summer to supplement low streamflows, drawing most reservoirs down to low levels by the end of the summer. An average or above average snowpack will be needed next winter to refill reservoirs and avoid critical water shortages in the summer of 1988.

## STREAMFLOW:

Streamflow forecasts as of April 1 are near or below the levels predicted a month ago. The Little Lost River near Howe is now expected to produce the LOWEST STREAMFLOW IN THE LAST 30 YEARS for the April-September period. Forecasts across the state range from 60 to 71% in northern Idaho, 30 to 62% in central Idaho, 58 to 65% in the east, and 34 to 49% across the southern edge of the state. With snowmelt already beginning at most elevations during the first week of April, water users can expect low peak flows and a much earlier than normal return to low flow conditions. During very low snowpack years such as this one, spring rains are very important in determining the total seasonal runoff. Much above normal precipitation during May and June could improve the anticipated water supply situation significantly. The April-June weather outlook, however, calls for below normal precipitation.

# Upper Columbia Basin

**Mountain snowpack\* (inches)**



\*Based on selected stations

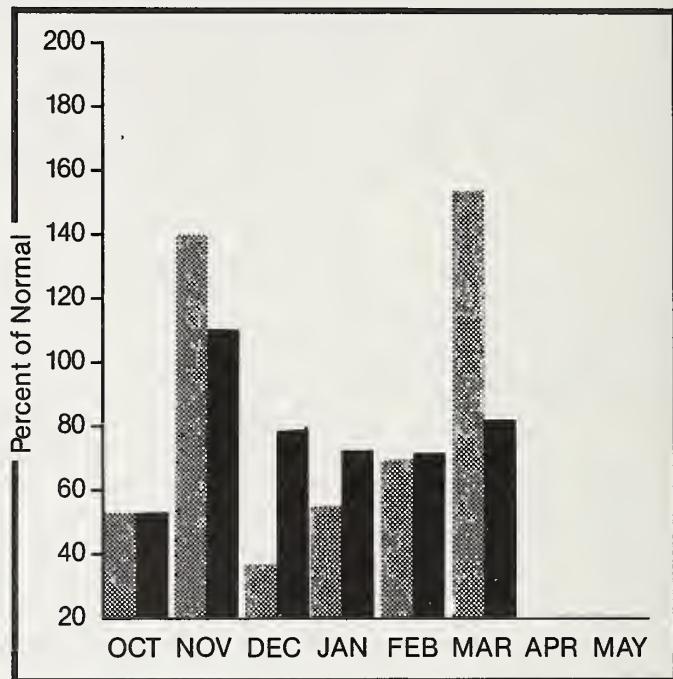
Maximum

Average

Minimum

Current

**Precipitation\* (percent of normal)**



\*Based on selected stations



Monthly precipitation



Year to date precipitation

## WATER SUPPLY OUTLOOK:

Snowpack conditions currently range from 68% of average on the Coeur d'Alene drainage to 81% on the Priest River basin. Exceptions to this are in the lower elevation Palouse, Hayden Lake, and Rathdrum Creek drainages where snowpacks range from only 41 to 50% of normal. Precipitation amounts during March were reported to be above normal for the first time since November with valley stations reporting 81 to 254% of average and mountain SNOTEL stations reporting 97 to 162% of average. April-July streamflow forecasts remain about the same as last month, ranging from 60% of normal on the Spokane at Post Falls to 82% on the Kootenai at Leonia.

For more information contact your local Soil Conservation Service office.

**UPPER COLUMBIA RIVER BASIN**

**STREAMFLOW FORECASTS**

FORECAST POINT	FORECAST PERIOD	25 YR. AVG. (1000AF)	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVG.)	REAS. MAX. (1000AF)	REAS. MAX. (% AVG.)	REAS. MIN. (1000AF)	REAS. MIN. (% AVG.)
KOOTENAI at Leonia 2	APR-SEP	8441.0	6940.0	82	8540.0	101	5340.0	63
	APR-JUL	7340.0	6030.0	82	7420.0	101	4640.0	63
	APR-JUN	5899.0	4840.0	82	5960.0	101	3720.0	63
CLARK FORK at White Horse Rapids 2	APR-SEP	13370.0	9710.0	73	12400.0	93	7040.0	53
	APR-JUL	12150.0	8820.0	73	11300.0	93	6390.0	53
	APR-JUN	10360.0	7560.0	73	9630.0	93	5490.0	53
PEND OREILLE LAKE inflow 2	APR-SEP	14930.0	10500.0	70	13500.0	90	7510.0	50
	APR-JUL	13650.0	9610.0	70	12300.0	90	6880.0	50
	APR-JUN	11780.0	8260.0	70	10600.0	90	5900.0	50
PRIEST RIVER at Priest 2	APR-SEP	893.0	630.0	71	855.0	96	410.0	46
	APR-JUL	838.0	595.0	71	805.0	96	385.0	46
SPOKANE at Post Falls 2	APR-SEP	2820.0	1690.0	60	2450.0	87	930.0	33
	APR-JUL	2723.0	1630.0	60	2360.0	87	895.0	33
ST. JOE at Calder	APR-SEP	1281.0	780.0	61	1040.0	81	525.0	41
	APR-JUL	1211.0	740.0	61	980.0	81	500.0	41
COEUR D' ALENE at Enaville	APR-SEP	830.0	535.0	64	700.0	84	375.0	45
	APR-JUL	789.0	505.0	64	660.0	84	355.0	45

RESERVOIR STORAGE (1000AF)				WATERSHED SNOWPACK ANALYSIS				
RESERVOIR	USEABLE CAPACITY <sup>1</sup>	** USEABLE STORAGE ** THIS YEAR	LAST YEAR AVG.	WATERSHED	NO. COURSES	THIS YEAR AS % OF AVG'D	LAST YR.	AVERAGE
HUNGRY HORSE	3451.0	2336.0	2515.0	2110.0	Kootenai ab Bonners Ferry	56	109	79
FLATHEAD LAKE	1791.0	641.0	805.3	757.2	Clark Fork River	170	93	70
PEND OREILLE	1561.2	376.0	835.6	813.7	Friest River	116	86	66
NOXON RAPIDS	335.0	326.7	299.8	213.0		6	133	79
COEUR D'ALENE	291.2	186.2	349.2	234.3	Rathdrum Creek	1	104	77
PRIEST LAKE	97.7	57.8	34.8	39.8	Hayden Lake	4	246	50
					Coeur d'Alene River	10	121	68
					St. Joe River	10	102	72
					Spokane River	24	111	69
					Palouse River	3	81	41

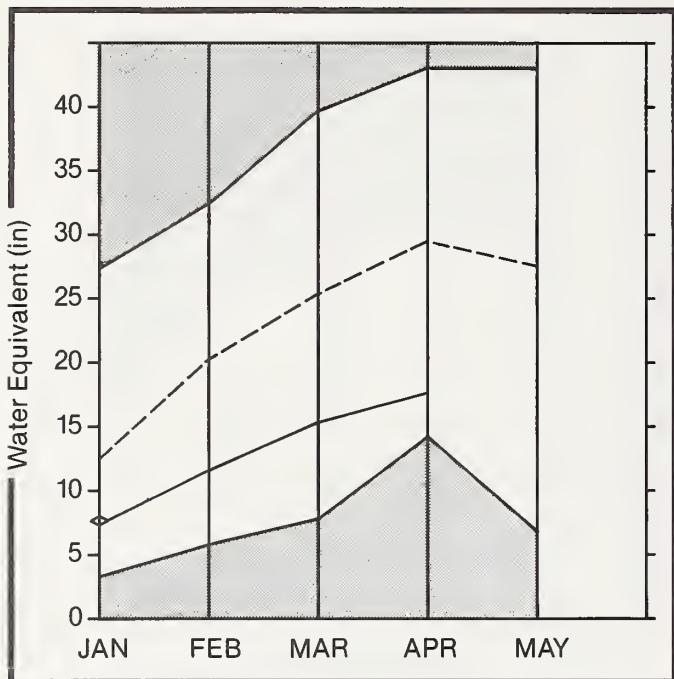
1 - Reas. max. and reas. min. forecasts are for 5% and 95% exceedance levels and also (2) below.

2 - Corrected for upstream diversions or changes in reservoir storage.

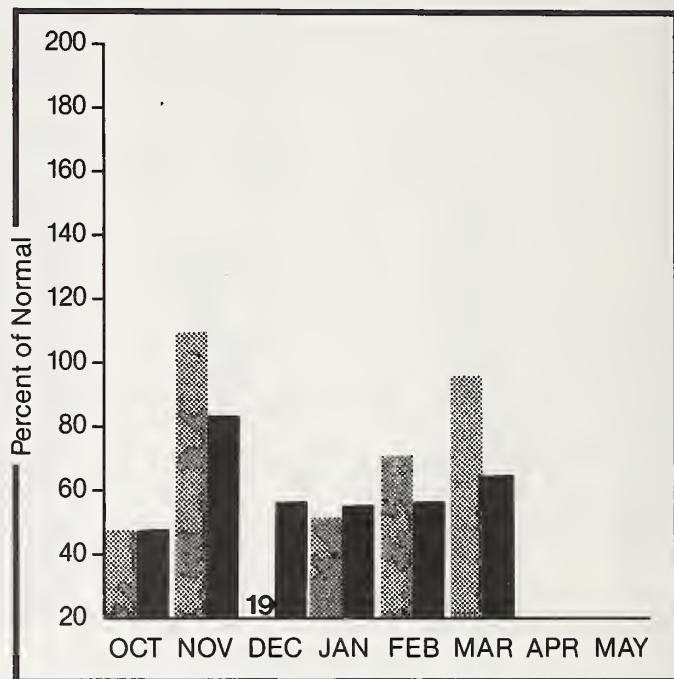
The average is computed for the 1961-85 base period.

# Clearwater and Salmon River Basin

Mountain snowpack\* (inches)



Precipitation\* (percent of normal)



\*Based on selected stations

\*Based on selected stations

Maximum

Average

Minimum

Current

Monthly precipitation

Year to date precipitation

## WATER SUPPLY OUTLOOK:

April 1 snow measurements show little or no change in the snowpack conditions over the past month. Snowpacks remain below to well below normal, ranging from 74% of normal on the Lemhi basin to 57% on the Salmon River basin. The Clearwater River and its tributaries report 68 to 72% of average snowpack. March precipitation was near normal in the Clearwater basin and below normal in the Salmon drainage. April-July streamflow forecasts range from a low of 58% of normal on the Salmon at Whitebird to 63% on the Clearwater at Orofino.

For more information contact your local Soil Conservation Service office.

**CLEARWATER AND SALMON RIVER BASIN**

**STREAMFLOW FORECASTS**

FORECAST POINT	FORECAST PERIOD	25 YR. AVG. (1000AF)	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVG.)	REAS. MAX. (1000AF)	REAS. MAX. (% AVG.)	REAS. MIN. (1000AF)	REAS. MIN. (% AVG.)
CLEARWATER at Orofino	APR-SEP	5163.0	3250.0	63	4590.0	89	1910.0	37
	APR-JUL	4889.0	3070.0	63	4340.0	89	1800.0	37
CLEARWATER at Spalding	APR-SEP	8378.0	5300.0	63	7230.0	86	3460.0	41
	APR-JUL	7916.0	5000.0	63	6820.0	86	3260.0	41
DWORSHAK RESERVOIR inflow	APR-SEP	3010.0	1840.0	61	2500.0	83	1180.0	39
	APR-JUL	2822.0	1730.0	61	2350.0	83	1110.0	39
SALMON at Whitebird	APR-SEP	7007.0	4070.0	58	5610.0	80	2530.0	36
	APR-JUL	6322.0	3670.0	58	5060.0	80	2280.0	36
SALMON at Salmon	APR-SEP	1077.0	670.0	62	1040.0	97	315.0	29
	APR-JUL	919.0	570.0	62	880.0	96	270.0	29

RESERVOIR STORAGE (1000AF) | WATERSHED SNOWPACK ANALYSIS

RESERVOIR	USEABLE CAPACITY	** USEABLE STORAGE **			WATERSHED	NO. COURSES	THIS YEAR AS % OF	
		THIS YEAR	LAST YEAR	AVG.				
DWORSHAK	3467.8	2830.6	2800.7	1996.2	North Fork Clearwater	15	91	69
					Lochsa River	5	89	70
					Selway River	7	87	72
					Clearwater River	23	89	69
					Salmon River ab Salmon	13	53	60
					Lemhi River	8	68	74
					Salmon River Total	34	57	58

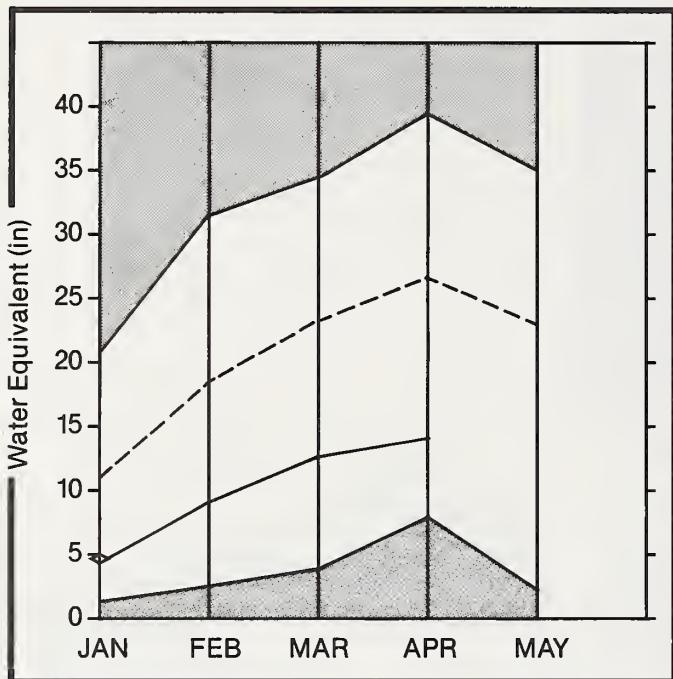
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2 - Corrected for upstream diversions or changes in reservoir storage.

The average is computed for the 1961-85 base period.

# Weiser, Payette, and Boise River Basin

Mountain snowpack\* (inches)



\*Based on selected stations

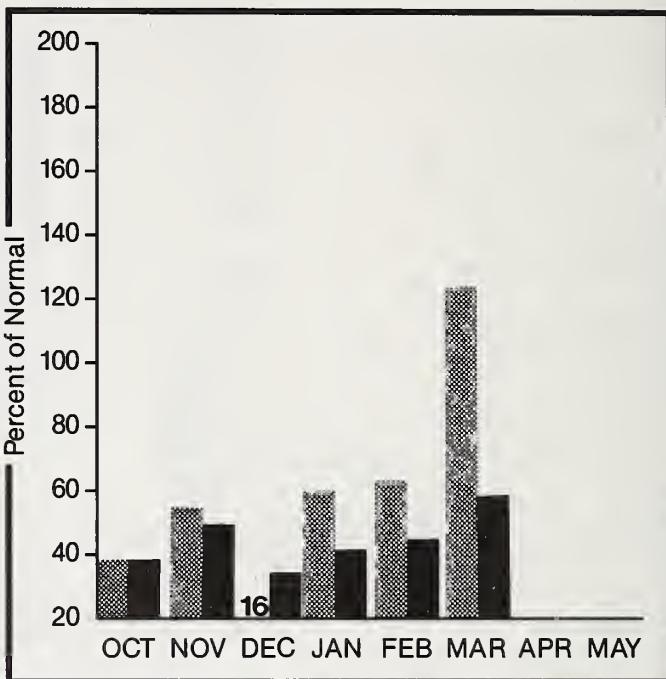
Maximum 

Average 

Minimum 

Current 

Precipitation\* (percent of normal)



\*Based on selected stations

Monthly precipitation 

Year to date precipitation 

## WATER SUPPLY OUTLOOK‡

Mountain precipitation during March was near or slightly above normal, based on SNOTEL reports from the basin. However, this did little to improve the snowpack situation as most of the precipitation was in the form of rain. Snowpacks remain well below normal over the basin ranging from 28% of average on the Canyon Creek drainage near Mountain Home to 58% on the N. Fork Payette. Mild temperatures and rainfall caused lower and middle elevation snow to melt with most snowpacks below 5500 feet elevation being completely melted by April 1. April-July streamflows are forecast to be very low, ranging from 38 to 53% of average. The Boise River near Boise and the Weiser near Weiser are forecast to produce the second lowest volumes in over 30 years. Several reservoirs are not expected to fill, including the Boise system and Crane Creek reservoir. Water rationing may be needed where good reservoir storage is not available.

WEISER, PAYETTE AND BOISE RIVER BASIN

STREAMFLOW FORECASTS

FORECAST POINT	FORECAST PERIOD	25 YR. AVG. (1000AF)	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVG.)	REAS. MAX. (1000AF)	REAS. MAX. (% AVG.)	REAS. MIN. (1000AF)	REAS. MIN. (% AVG.)
WEISER nr Weiser	APR-SEP	444.0	200.0	45	385.0	87	14.0	3
	APR-JUL	414.0	188.0	45	360.0	87	14.0	3
PAYETTE nr Horseshoe 2	APR-SEP	1862.0	930.0	50	1300.0	70	560.0	30
	APR-JUL	1717.0	860.0	50	1200.0	70	520.0	30
NF PAYETTE at Cascade 2	APR-SEP	568.0	300.0	53	420.0	74	180.0	32
	APR-JUL	531.0	280.0	53	390.0	73	165.0	31
NF PAYETTE nr Banks 2	APR-SEP	737.0	375.0	51	515.0	70	235.0	32
	APR-JUL	691.0	355.0	51	485.0	70	225.0	33
SF PAYETTE at Lowman	APR-SEP	516.0	255.0	49	345.0	67	160.0	31
	APR-JUL	458.0	225.0	49	305.0	67	145.0	32
DEADWOOD RESERVOIR inflow	APR-JUL	143.0	72.0	50	96.0	67	46.0	32
BOISE RIVER nr Twin Springs 1	APR-SEP	722.0	315.0	44	440.0	61	185.0	26
	APR-JUL	664.0	290.0	44	405.0	61	170.0	26
SF BOISE at Anderson Dam 1	APR-SEP	619.0	235.0	38	355.0	57	125.0	20
	APR-JUL	578.0	220.0	38	330.0	57	115.0	20
BOISE RIVER nr Boise 1	APR-SEP	1628.0	630.0	39	955.0	59	305.0	19
	APR-JUL	1508.0	580.0	38	880.0	58	280.0	19
	APR-JUN	1334.0	510.0	38	775.0	58	245.0	18

RESERVOIR STORAGE (1000AF) | WATERSHED SNOWPACK ANALYSIS

RESERVOIR	USEABLE CAPACITY	** USEABLE STORAGE **	WATERSHED	NO. COURSES	THIS YEAR AS % OF
	THIS YEAR	LAST YEAR	Avg.	Avg'd	LAST YR. AVERAGE
MANN CREEK	NO REPORT		Mann Creek	5	56 35
CASCADE	703.2	506.5 465.0 377.6	Weiser River	9	57 43
DEADWOOD	162.0	98.0 84.7 90.8	North Fork Payette	10	66 60
ANDERSON RANCH	464.2	384.4 303.7 278.1	South Fork Payette	7	56 56
ARROWROCK	286.6	181.9 247.8 227.8	Payette River Total	16	61 58
LUCKY PEAK	307.0	218.9 36.7 153.2	Middle & North Fork Boise	9	43 50
LAKE LOWELL (DEER FLAT)	177.0	152.9 147.2 152.9	South Fork Boise River	11	40 46
			Boise River Total	20	43 47
			Canyon Creek	3	29 28

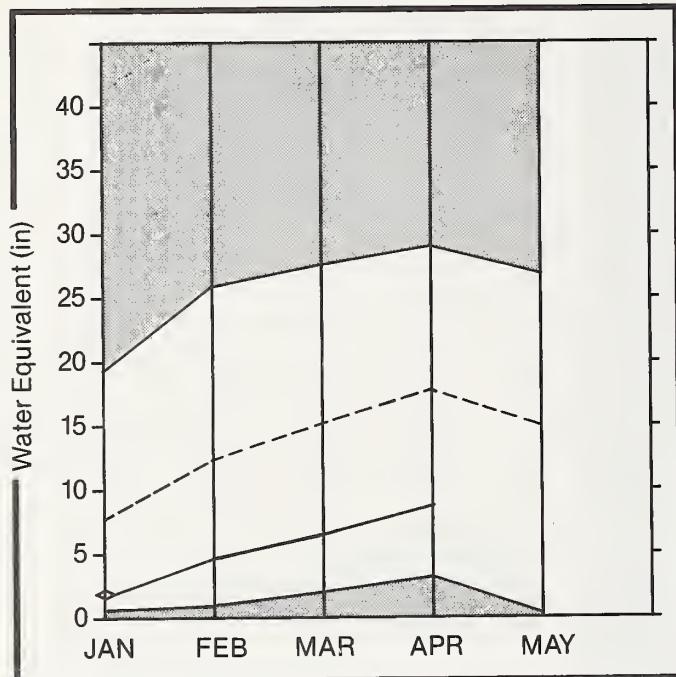
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The average is computed for the 1961-85 base period.

# Big Wood, Little Wood, Big Lost, and Little Lost River Basin

Mountain snowpack\* (inches)



\*Based on selected stations

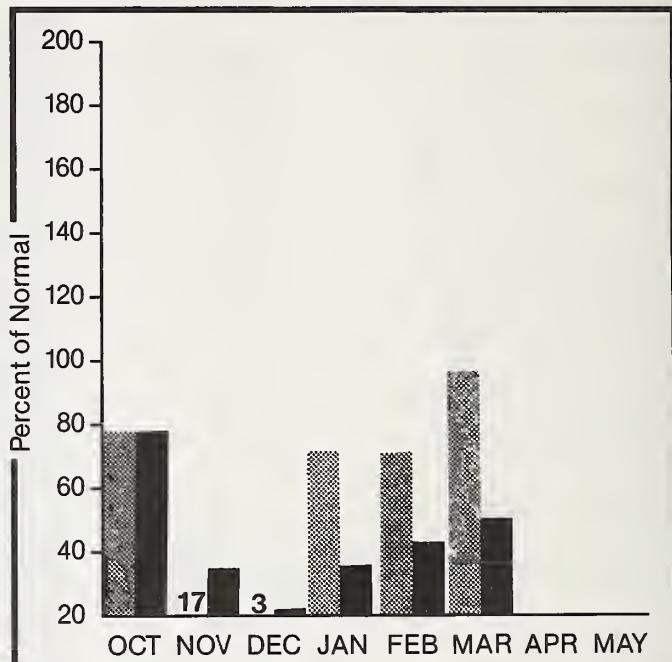
Maximum ———

Average -----

Minimum ———

Current ———

Precipitation\* (percent of normal)



\*Based on selected stations



Monthly precipitation

Year to date precipitation

## WATER SUPPLY OUTLOOK:

Precipitation during March was near or slightly above normal throughout the basin for the first time since September. Higher elevation snowpacks improved slightly but mild temperatures and rainfall melted much of the lower elevation snow. Most snow below 6000 feet elevation was completely melted by April 1. Basin snowpacks remain very low, ranging from 30 to 55% of average. April-July streamflows are forecast to be very low, ranging from 30 to 48% of normal. The Little Lost near Howe is forecast to produce the lowest flows in the last 30 years, with the Big Lost forecast at the second lowest. Little Wood reservoir is full as of April 1, and Mackay reservoir, currently at 87% of capacity, is also expected to fill. Carey Valley (Fish Creek) and Magic reservoirs are not expected to fill to capacity given current forecasts and anticipated irrigation demands. Water shortages or rationing can be expected this summer where good reservoir storage is not available.

**BIG WOOD, LITTLE WOOD, BIG LOST AND LITTLE LOST RIVER BASIN**

**STREAMFLOW FORECASTS**

FORECAST POINT	FORECAST PERIOD	25 YR. AVG. (1000AF)	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVG.)	REAS. MAX. (1000AF)	REAS. MAX. (% AVG.)	REAS. MIN. (1000AF)	REAS. MIN. (% AVG.)
BIG WOOD nr Bellevue	APR-SEP	217.0	87.0	40	145.0	67	25.0	12
	APR-JUL	202.0	81.0	40	135.0	67	25.0	12
MAGIC RESERVOIR inflow	APR-SEP	338.0	102.0	30	255.0	75	58.0	17
	APR-JUL	322.0	97.0	30	240.0	75	55.0	17
LITTLE WOOD nr Carey	APR-SEP	107.0	33.0	31	61.0	57	27.0	25
	APR-JUL	99.0	30.0	30	56.0	57	25.0	25
BIG LOST at Howell Ranch	APR-SEP	219.0	97.0	44	165.0	75	29.0	13
	APR-JUL	192.0	85.0	44	145.0	76	25.0	13
	APR-JUN	148.0	66.0	45	112.0	76	20.0	14
BIG LOST nr Mackay 2	APR-SEP	195.0	82.0	42	146.0	75	16.0	8
LITTLE LOST b1 Wet Ck	APR-SEP	38.8	18.3	47	32.0	82	5.0	13
	APR-JUL	31.4	14.7	47	26.0	83	4.0	13
LITTLE LOST nr Howe	APR-SEP	44.0	21.0	48	36.0	82	6.0	14
	APR-JUL	33.0	16.0	48	27.0	82	5.0	15

RESERVOIR	RESERVOIR STORAGE (1000AF)			WATERSHED SNOWPACK ANALYSIS				
	USEABLE CAPACITY	** USEABLE STORAGE **			WATERSHED	NO. COURSES	THIS YEAR AS % OF	
		THIS YEAR	LAST YEAR	AVG.			Avg'D	LAST YR. AVERAGE
MAGIC	191.5	145.0	149.4	117.4	Big Wood ab Magic	10	44	53
LITTLE WOOD	30.0	29.5	21.4	18.4	Camas Creek	6	31	32
CAREY VALLEY	14.4	8.8	7.6	---	Big Wood Total	15	41	48
MACKAY	44.4	38.8	31.5	33.3	Little Wood River	4	40	41
					Fish Creek	3	23	30
					Big Lost River	9	46	53
					Little Lost River	4	59	55

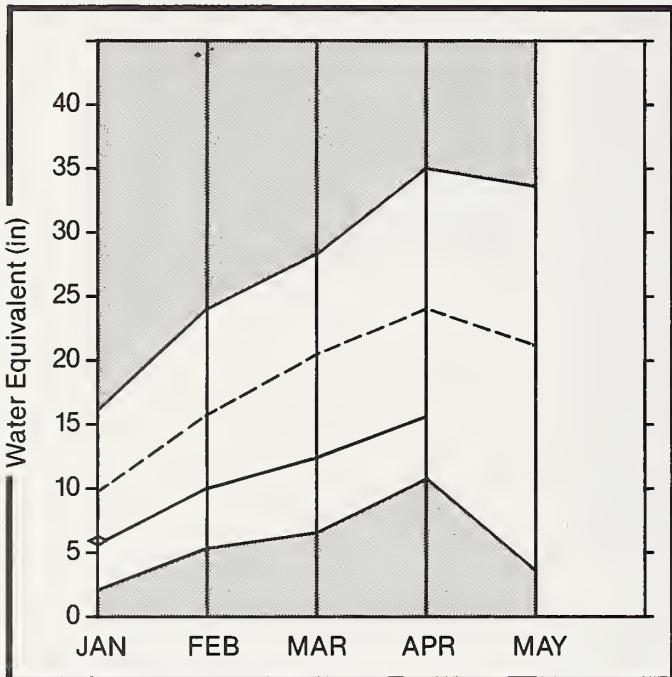
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2 - Corrected for upstream diversions or changes in reservoir storage.

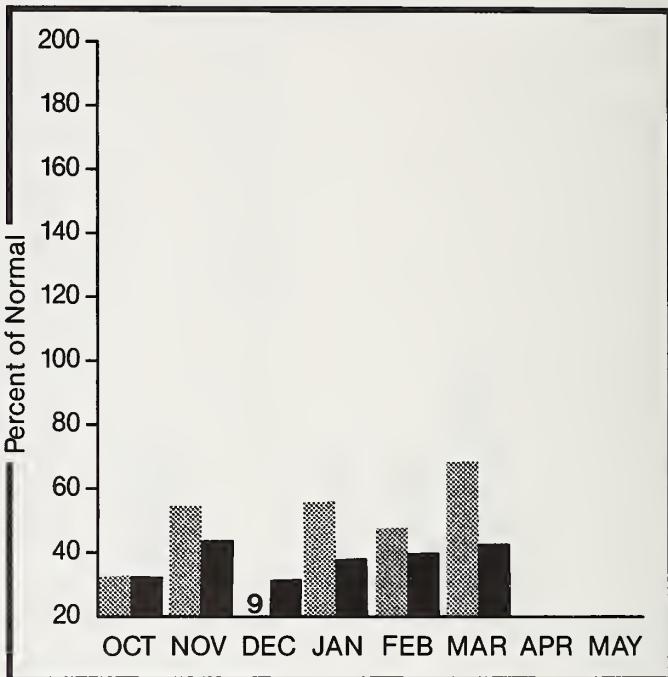
The average is computed for the 1961-85 base period.

# Willow Creek, Blackfoot, Upper Snake, and Portneuf River Basin

Mountain snowpack\* (inches)



Precipitation\* (percent of normal)



\*Based on selected stations

\*Based on selected stations

Maximum Average   
 Minimum Current

Monthly precipitation Year to date precipitation

## WATER SUPPLY OUTLOOK:

High elevation SNOTEL sites reported below normal precipitation during March and most basin snowpack conditions remain unchanged or have decreased slightly from those reported a month ago. Most watersheds now report 50 to 65% of normal snowpack. One exception is the Gros Ventre River basin in Wyoming where the snowpack is 83% of average. Low elevation snowpacks are now beginning to melt and continued mild temperatures will bring much earlier than normal runoff. April-July streamflow forecasts are well below normal, ranging from 58% of average on the Henry's Fork near Rexburg to 65% on the Snake near Heise. Most reservoirs are nearly filled to capacity and water supplies should be adequate from most water users during the summer irrigation season.

For more information contact your local Soil Conservation Service office.

## WILLOW CREEK, BLACKFOOT, UPPER SNAKE AND FORTNEUF RIVER BASIN

## STREAMFLOW FORECASTS

FORECAST POINT	FORECAST PERIOD	25 YR. AVG. (1000AF)	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVG.)	REAS. MAX. (1000AF)	REAS. MAX. (% AVG.)	REAS. MIN. (1000AF)	REAS. MIN. (% AVG.)
HENRY'S FORK nr Ashton 2	APR-SEP	746.0	460.0	62	520.0	70	395.0	53
	AFR-JUL	557.0	345.0	62	390.0	70	295.0	53
HENRYS FORK nr Rexburg 2	APR-SEP	1595.0	915.0	57	1170.0	73	660.0	41
	AFR-JUL	1260.0	725.0	58	930.0	74	525.0	42
FALLS RIVER nr Squirrel	AFR-JUL	373.0	230.0	62	290.0	78	165.0	44
TETON RIVER ab S Leigh Ck	APR-SEP	194.0	120.0	62	145.0	75	95.0	49
	AFR-JUL	145.0	90.0	62	109.0	75	71.0	49
TETON nr St. Anthony	APR-SEP	479.0	295.0	62	350.0	73	240.0	50
	AFR-JUL	387.0	240.0	62	285.0	74	195.0	50
SNAKE at Moran 1	APR-SEP	888.0	600.0	68	745.0	84	460.0	52
PALISADES LAKE inflow 1	AFR-SEP	3852.0	2500.0	65	3270.0	85	1730.0	45
SNAKE nr Heise 2	APR-SEP	4142.0	2700.0	65	3530.0	85	1910.0	46
	AFR-JUL	3524.0	2300.0	65	3010.0	85	1630.0	46
SNAKE nr Blackfoot 2	APR-SEP	5680.0	3580.0	63	4545.0	80	2670.0	47
	AFR-JUL	4589.0	2880.0	63	3660.0	80	2150.0	47
FORTNEUF at Topaz	MAR-SEP	109.0	57.0	52	94.0	86	20.0	18
	MAR-JUL	88.0	46.0	52	76.0	86	16.0	18

## RESERVOIR STORAGE (1000AF) | WATERSHED SNOWPACK ANALYSIS

RESERVOIR	USEABLE CAPACITY	** USEABLE STORAGE **			WATERSHED	NO. COURSES	THIS YEAR AS % OF	
		THIS YEAR	LAST YEAR	AVG.			Avg'D	LAST YR.
ISLAND PARK	127.6	134.2	95.9	119.3	Camas-Beaver Creeks	4	73	59
GRASSY LAKE	15.2	13.3	12.9	11.2	Henry's Fork River	13	55	57
JACKSON LAKE	624.4	113.4	148.8	525.9	Teton River	6	57	65
PALISADES	1357.0	1323.2	1068.4	968.2	Snake above Palisades	32	52	63
AMERICAN FALLS	1700.0	1630.9	1094.9	1452.5	Snake above Jackson Lake	10	47	55
BROWNLEE	975.3	824.8	895.8	449.1	Gros Ventre River	3	65	83
BLACKFOOT	NO REPORT				Greys River	4	48	57
HENRY'S LAKE	90.4	83.3	---	80.1	Salt River	5	52	58
RIRIE	96.5	58.3	---	53.1	Willow Creek	11	73	64
					Blackfoot River	10	50	57
					Portneuf River	13	49	50
					Toponce Creek	3	51	45

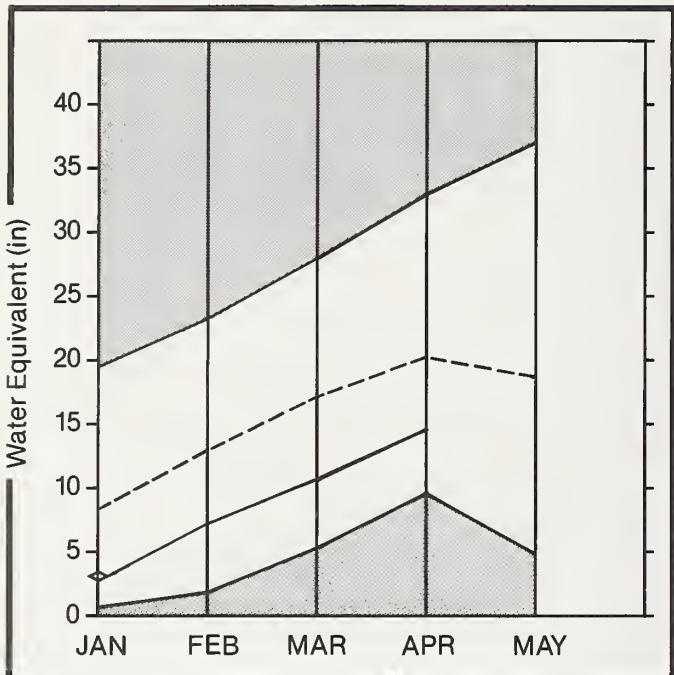
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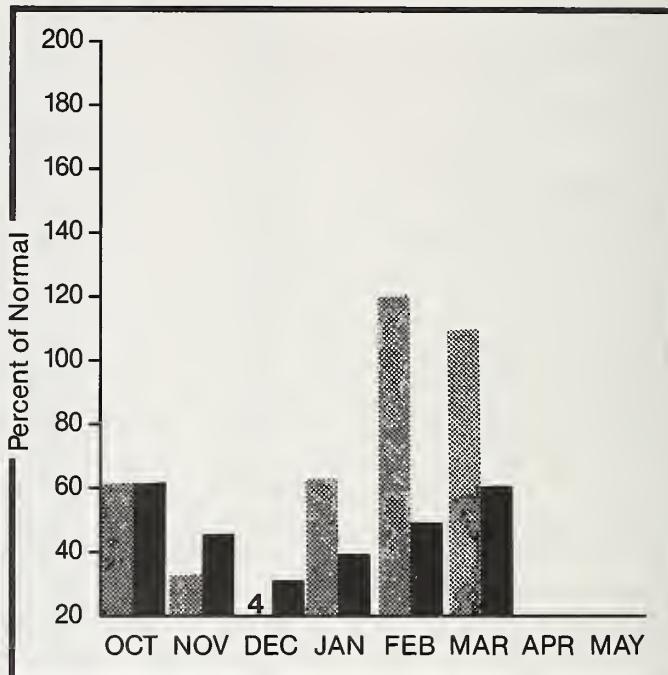
The average is computed for the 1961-85 base period.

# Southside Snake River Basin

Mountain snowpack\* (inches)



Precipitation\* (percent of normal)



\*Based on selected stations

\*Based on selected stations

Maximum



Average



Minimum



Current



Monthly precipitation



Year to date precipitation

## WATER SUPPLY OUTLOOK\*

Near to slightly below normal mountain precipitation during March did little to improve the snowpack in the basin. The higher elevation snowpack in the Jarbidge area improved slightly while the lower elevation snowpacks on the Owyhee and Raft River drainages showed a decrease in comparison to normal. Mild temperatures and rainfall in early March have depleted much of the snow below 6000 feet. Snowpacks currently range from 56 to 69% of average throughout the basin. Streamflow forecasts are well below normal ranging from 36 to 49% of average. Reservoir storage is good in all major reservoirs, ranging from near normal in Owyhee and Oakley reservoirs to well above normal in Salmon Falls reservoir. Water supplies should be adequate this summer for irrigators having access to stored water. Water shortages could be experienced by mid to late summer on drainages without storage facilities.

SOUTHSIDE SNAKE RIVER BASIN

STREAMFLOW FORECASTS

FORECAST POINT	FORECAST PERIOD	25 YR. AVG. (1000AF)	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVG.)	REAS. MAX. (1000AF)	REAS. MAX. (% AVG.)	REAS. MIN. (1000AF)	REAS. MIN. (% AVG.)
OAKLEY RESERVOIR inflow	APR-SEP	33.0	12.2	37	24.0	73	2.0	6
	APR-JUL	29.7	10.8	36	22.0	74	2.0	7
SALMON FALLS CK nr San Jacinto	MAR-SEP	102.0	41.0	40	78.0	76	4.0	4
	MAR-JUL	97.0	39.0	40	74.0	76	4.0	4
	MAR-JUN	91.0	36.0	40	69.0	76	3.0	3
BRUNEAU nr Hot Spring	MAR-SEP	260.0	104.0	40	200.0	77	8.0	3
	MAR-JUL	248.0	99.0	40	191.0	77	7.0	3
OWYHEE RIVER nr Gold Creek 2	APR-JUL	27.8	11.0	40	26.0	94	3.0	11
OWYHEE RIVER nr Owyhee 2	APR-JUL	86.0	36.0	42	76.0	88	11.0	13
OWYHEE LAKE inflow 1	APR-SEP	455.0	220.0	49	397.0	87	39.0	9
	APR-JUL	427.0	210.0	49	376.0	88	40.0	9
OWYHEE at Rome 2	APR-JUL	376.0	180.0	48	349.0	93	11.0	3

RESERVOIR STORAGE (1000AF)				WATERSHED SNOWPACK ANALYSIS				
RESERVOIR	USEABLE CAPACITY	** USEABLE STORAGE **	WATERSHED	NO. COURSES	THIS YEAR AS % OF	LAST YR.	AVERAGE	
	THIS YEAR	LAST YEAR	AVG.	Avg'D				
OAKLEY	77.4	34.8	44.3	34.0	Raft River	9	57	64
SALMON FALLS	182.6	99.7	108.7	62.3	Goose-Trapper Creeks	5	52	62
OWYHEE	715.0	565.9	706.1	560.6	Salmon Falls Creek	12	76	68
					Bruneau River	11	74	69
					Owyhee River	19	74	66

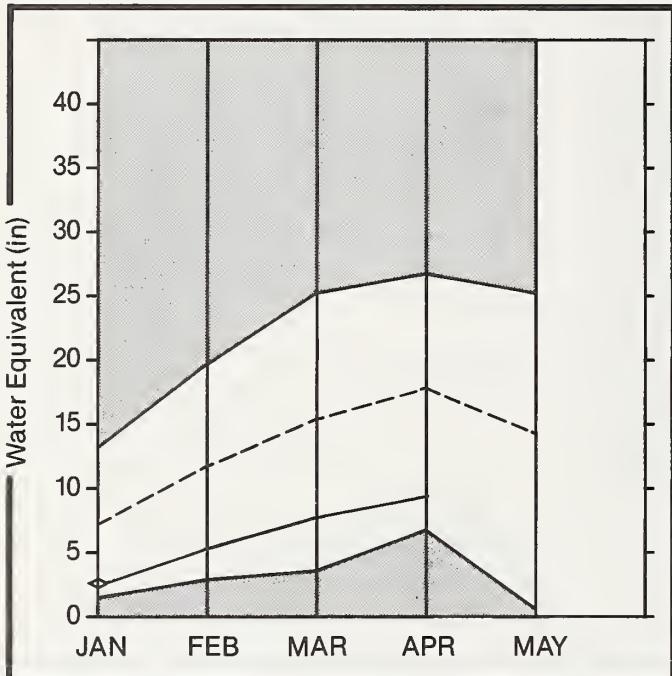
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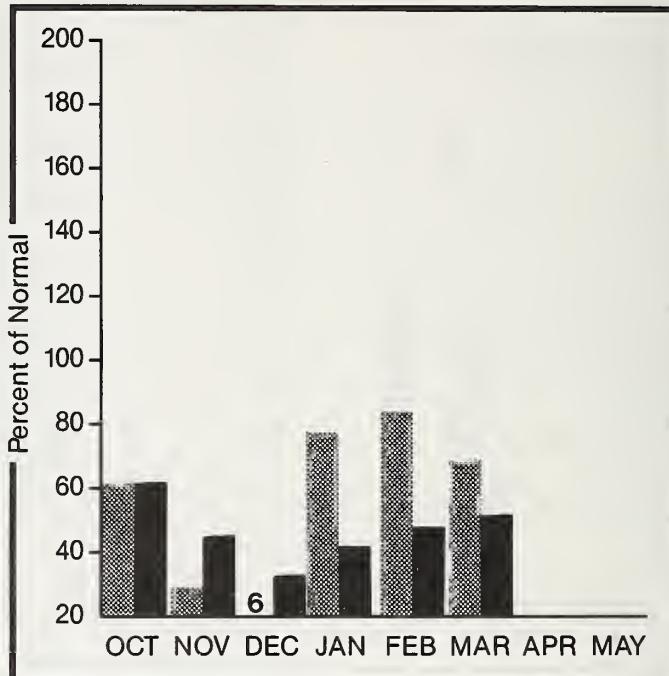
The average is computed for the 1961-85 base period.

# Great Basin

Mountain snowpack\* (inches)



Precipitation\* (percent of normal)



\*Based on selected stations

\*Based on selected stations

Maximum



Average



Minimum



Current



Monthly precipitation



Year to date precipitation



## WATER SUPPLY OUTLOOK:

March precipitation was below normal for the sixth consecutive month. Basin snowpack conditions have not changed significantly from those reported last month and remain well below average. Currently, snowpacks range from 44 to 63% of average on all basins except the Malad River drainage which reports only 31% of normal snowpack. Spring and summer streamflows are forecast to be well below normal ranging from 34 to 43% of average. If the pattern of below normal precipitation continues, water supplies could be inadequate for some users - particularly those not having the benefit of reservoir storage facilities.

For more information contact your local Soil Conservation Service office.

**GREAT BASIN**

**STREAMFLOW FORECASTS**

FORECAST POINT	FORECAST PERIOD	25 YR. AVG.	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVG.)	REAS. MAX. (1000AF)	REAS. MAX. (% AVG.)	REAS. MIN. (1000AF)	REAS. MIN. (% AVG.)
BEAR at Harer	APR-SEP	310.0	110.0	35	178.0	57	42.0	14
MONTPELIER CK nr Montpelier	APR-SEP	13.9	4.8	34	10.0	72	1.0	7
CUB RIVER nr Preston	APR-SEP	51.8	22.3	43	44.0	85	12.0	23
	APR-JUL	46.8	20.1	43	40.0	85	6.0	13
RESERVOIR STORAGE (1000AF)				WATERSHED SNOWPACK ANALYSIS				
RESERVOIR	USEABLE CAPACITY	** USEABLE STORAGE **			WATERSHED	NO. COURSES	THIS YEAR AS % OF	
	THIS YEAR	LAST YEAR	AVG.			AVG'D	LAST YR.	AVERAGE
BEAR LAKE	1421.0	1086.2	1089.0	1002.1	Bear River (above Harer)	11	48	64
MONTPELIER CREEK	3.9	2.5	1.8	1.6	Montpelier Creek	7	37	54
					Mink Creek	8	37	44
					Cub River	4	56	51
					Malad River	7	35	31

1 - Reas. max. and reas. min. forecasts are for 5% and 95% exceedance levels and also (2) below.

2 - Corrected for upstream diversions or changes in reservoir storage.

The average is computed for the 1961-85 base period.

# SNOW DATA MEASUREMENTS

SNOW COURSE	ELATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1961-85	SNOW COURSE	ELATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1961-85								
<b>UPPER COLUMBIA BASIN</b>																					
ABOVE BURKE	4100	3/31/87	38	13.6	15.1	22.6	MORGAN CREEK	7600	3/28/87	30	7.1	16.1	14.3								
ABOVE ROLAND	4350	3/30/87	61	25.6	24.6	33.1	MORGAN CREEK PILLOW	7600	4/01/87	---	7.1	13.8	13.9								
BEAR MOUNTAIN	5400	4/01/87	---	52.0E	33.4	61.1	MORSE CREEK SAWMILL	7120	3/28/87	28	7.0	12.0	9.4								
BEAR MTN PILLOW	5400	4/01/87	---	53.7	37.7	62.6	MOUNTAIN MEADOWS	6360	3/30/87	50	14.3	17.0	23.8								
BELOW ROLAND	3920	3/30/87	33	12.0	4.8	14.5	NE PERCE PASS	6360	4/01/87	57	15.9	18.9	26.2								
BENTON MEADOW	2370	3/31/87	0	0	0	4.2	PERREAU MEADOWS	8500	3/27/87	35	10.6	14.9	17.8								
BENTON SPRING	4920	3/31/87	37	13.6	8.1	19.4	PIERCE R.S.	3080	3/30/87	15	5.0	6.3	8.9								
BOYER MOUNTAIN	5250	3/30/87	54	20.4	19.7	26.6	REDFISH LAKE FLAT	6560	4/03/87	14	6.2	13.8	12.4								
BREEZY SADDLE	5010	3/27/87	63	21.7	20.3	32.8	ROCK FLAT SUMMIT	5310	3/29/87	33	11.6	13.6	19.1								
BUNCHGRASS MEADOWS	5000	3/30/87	66	24.2	17.4	30.4	SADDLE MOUNTAIN	7940	3/26/87	51	15.9	24.5	26.2								
BUNCHGRASS MDWPILLOW	5000	4/01/87	---	24.9	19.3	27.2	SADDLE MTN PILLOW	7900	4/01/87	---	15.6	24.5	27.3								
CHILCO RIDGE	3650	4/02/87	0	0	0	5.0	SAVAGE PASS	6170	4/01/87	50	18.4	23.6	27.3								
CONIE RIDGE	3900	4/02/87	0	0	0	6.2	SAVAGE PASS PILLOW	6170	4/01/87	---	18.0	24.7	29.0								
COPPER RIDGE	4820	4/01/87	43	19.0	8.6	27.2	SCHWARTZ LAKE	8540	3/29/87	41	11.1	15.8	13.5								
CORNER CREEK	3150	4/02/87	15	5.4	0	6.1	SECESH SUMMIT	6520	3/29/87	60	21.0	34.9	36.8								
EAST RAGGED SADDLE	3740	4/02/87	31	12.6	---	21.0	SECESH SUMMIT PILLOW	6520	4/01/87	---	20.6	32.6	37.3								
EAST TWIN	4130	3/31/87	4	1.4	2.7	8.8	SHANGHAI SUMMIT	4570	3/27/87	57	18.1	18.0	26.5								
FOORTY-NINE MEADWWS	4830	3/27/87	57	19.3	17.0	31.2	SHANGHAI SUM PILLOW	4570	4/01/87	56	19.3	17.0	27.9								
FOURTH OF JULY SUM	3200	3/31/87	0	0	0	7.3	SHERWIN	3200	4/01/87	15	4.8	6.5	12.1								
GRANITE PEAK	6000	3/30/87	90	31.2	31.4	45.4	SHERWIN PILLOW	3200	4/01/87	---	5.1	5.4	11.4								
HUMBOLDT GULCH	4250	3/31/87	26	8.4	10.5	16.8	SLAG-A-MELT LAKE	8750	3/30/87	46	13.0	24.6	27.0								
HUMBOLDT GLCH PILLOW	4250	4/01/87	---	8.5	5.6	15.8	SQUAW MEADOW	5900	3/29/87	55	19.8	35.0	37.0								
KELLOGG PEAK AM	5560	3/30/87	60	24.4	21.2	32.9	TWIN LAKES	6510	3/30/87	80	30.4	34.4	42.8								
LOOKOUT	5140	3/31/87	63	25.0	26.2	35.1	TWIN LAKES PILLOW	6400	4/01/87	---	29.5	31.4	42.5								
LOOKOUT PILLOW	5140	4/01/87	---	25.3	25.7	33.6	TWIN PEAKS	9190	4/01/87	48	15.1	25.0	25.9								
LOST LAKE	6110	3/27/87	119	44.6	43.3	59.3	VIENNA MINE	8960	4/01/87	61	21.1	48.7	37.9								
LOST LAKE PILLOW	6110	4/01/87	---	51.6	49.7	66.1	VIENNA MINE PILLOW	8960	4/01/87	---	19.1	43.8	37.8								
LOWER SANDS CREEK	3120	4/01/87	40	14.4	11.9	20.0	WEST BRANCH	5560	4/02/87	29	11.0	20.8	25.6								
MOSCOW MOUNTAIN	4410	3/31/87	34	12.3	14.3	17.2	WEST BRANCH PILLOW	5560	4/01/87	---	14.4	21.2	25.7								
MOSQUITO RIDGE	5200	3/30/87	77	30.2	21.6	38.2	<b>WATERSHED I</b>														
MOSQUITO PILLOW	5200	4/01/87	---	29.8	22.0	38.7	<b>WATERSHED III</b>														
RAGGED RIDGE	3330	3/30/87	0	0	0	---	WEISER, PAYETTE AND BOISE BASINS	7600	4/01/87	57	18.6	40.6	35.6								
ROLAND SUMMIT	5120	3/30/87	72	30.2	23.6	38.2	ATLANTA SUMMIT	7600	4/01/87	57	18.5	39.5	32.6								
SAGE CREEK SADDLE	4080	4/02/87	32	12.3	7.2	18.4	ATLANTA SUM PILLOW	7580	4/01/87	---	17.1	20.1	20.3								
SCHWEITZER BASIN	6090	3/29/87	108	38.4	31.1	47.8	ATLANTA TOWNSITE	5370	3/31/87	11	4.1	7.1	---								
SCHWEITZER BN PILLOW	6090	4/01/87	---	46.3	33.7	50.2	BANNER SUMMIT	7040	3/31/87	49	17.1	33.3	30.8								
SCHWEITZER BOWL	4800	3/31/87	57	23.0	16.6	30.5	BANNER SUMMIT PILLOW	7040	4/01/87	---	15.6	31.3	27.9								
SCHWEITZER RIDGE	6200	3/31/87	111	45.9	32.3	47.9	BAD BEAR	4940	4/01/87	11	4.0	12.0	13.4								
SHERWIN	3200	4/01/87	15	4.8	6.5	12.1	BEAR BASIN	5350	3/29/87	35	12.0	17.1	20.1								
SHERWIN PILLOW	3200	4/01/87	---	5.1	5.4	11.4	BEAR BASIN PILLOW	5350	4/01/87	---	11.3	17.4	20.3								
SKITWISH RIDGE	5110	4/01/87	58	23.9	15.9	33.2	BEAR SADDLE	6180	3/31/87	36	13.0	21.0	31.4								
SMITH CREEK	4800	3/30/87	83	33.8	28.2	46.4	BEAR SADDLE PILLOW	6180	4/01/87	---	13.3	22.4	31.6								
SUNSET	5540	3/30/87	61	21.4	17.8	33.5	BENNETT MOUNTAIN	6560	3/29/87	29	8.9	22.8	18.1								
SUNSET PILLOW	5540	4/01/87	---	28.0	26.1	35.8	BENNETT MTN. PILLOW	6560	4/01/87	---	10.3	20.0	20.0								
WEST TWIN	4220	3/31/87	0	0	0	7.5	BIG CREEK SUMMIT	6580	4/02/87	58	19.5	40.8	37.5								
<b>CLEARWATER AND SALMON BASINS</b>																					
<b>WATERSHED II</b>																					
ABOVE GILMORE	8200	3/29/87	32	7.6	12.1	10.3	BOULDER CREEK	5440	4/02/87	22	7.6	17.4	23.6								
ASPEN-HALL PASS AM	8200	3/26/87	36	6.7	12.4	10.5	BRUNDAGE MOUNTAIN	7560	4/01/87	---	23.0E	44.4	48.3								
BANNER SUMMIT	7040	3/31/87	49	17.1	33.3	30.8	BRUNDAGE RESV PILLOW	4500	4/01/87	---	16.0	22.7	34.5								
BANNER SUMMIT PILLOW	7040	4/01/87	---	15.6	31.3	27.9	CAMAS CREEK DIVIDE	5710	3/29/87	0	0	7.5	10.2								
BEAR BASIN	5350	3/29/87	35	12.0	17.1	20.1	CHIMNEY CREEK	6400	3/29/87	16	5.3	15.1	13.4								
BEAR BASIN PILLOW	5350	4/01/87	---	11.3	17.4	20.3	COUCH SUMMIT	6840	3/29/87	26	7.9	22.7	18.8								
BIG CREEK SUMMIT	6580	4/02/87	58	19.5	40.8	37.5	COZY COVE	5380	3/31/87	18	7.0	10.1	15.8								
BIG CREEK SUM PILLOW	6580	4/01/87	---	20.5	43.0	33.9	COZY COVE PILLOW	5380	4/01/87	---	9.0	14.1	23.9								
BORAH	6200	4/01/87	24	5.5	8.2	6.1	DEADMAN GULCH	5600	3/28/87	30	13.0	16.8	16.8								
BOULDER CREEK	5440	4/02/87	22	7.6	17.4	23.6	DEADWOOD AIRSTRIP	5360	4/01/87	---	8.6E	11.7	15.3								
FREEZY SADDLE	5010	3/27/87	63	21.7	20.3	32.8	DEADWOOD AIRSTRIP PILLOW	5360	4/01/87	---	26.4	51.2	52.2								
BRUNOAGE MOUNTAIN	7560	4/01/87	---	23.0E	44.4	42.3	DOLLARHIE SUMMIT	8420	4/01/87	46	14.0	31.6	25.4								
BUCK MEADOWS	5650	3/30/87	63	23.2	24.6	30.7	DOLLARHIE SM PILLOW	8420	4/01/87	---	14.7	34.5	26.0								
CAYUSE AIRSTRIP	3500	3/30/87	13	5.0	6.3	8.7	GRAHAM GUARD STATION	5690	3/31/87	21	7.9	13.5	15.5								
COOL CREEK	6250	3/30/87	104	36.5	40.1	52.7	GRAHAM G.S. PILLOW	5690	4/01/87	---	5.3	16.7	17.7								
COOL CREEK PILLOW	6280	4/01/87	---	36.4	41.2	49.6	IAHO CITY TOWNSITE	4000	4/01/87	0	0	0	0								
COPES CAMP	6030	3/30/87	85	29.6	31.5	34.9	JACKSON PEAK	7070	3/31/87	48	16.0	36.8	32.2								
CRATER MEADOWS	5960	3/30/87	85	31.6	35.4	45.4	JACKSON PEAK PILLOW	7070	4/01/87	---	16.8	38.8	31.0								
CRATER MOWS PILLOW	5960	4/01/87	---	32.7	34.7	46.0	LAKE FORK	5290	3/28/87	41	16.4	15.6	16.2								
CROOKED FOR	3610	4/01/87	18	5.0	7.6	12.4	LITTLE CAMAS FLAT	4940	3/29/87	0	0	0	4.0								
DEADWOOD SUMMIT	6860	3/31/87	72	26.3	49.4	46.4	MANN CREEK	6080	3/31/87	38	15.4	23.4	26.6								
DEADWOOD SUM PILLOW	6660	4/01/87	---	26.4	51.2	52.2	MOORES CREEK SUMMIT	6100	4/01/87	49	18.1	42.8	33.0								
DOUBLE SPGS PASS AM	8380	3/28/87	29	7.5	14.3	10.8	MOORES C.K. SUM PILLOW	6100	4/01/87	---	16.9	45.8	35.2								
ELK BUTTE	5550	3/27/87	68	24.3	26.8	37.4	PLACER CREEK	5860	3/31/87	39	16.4	25.2	18.9								
ELK BUTTE PILLOW	5550	4/01/87	---	27.4	28.6	42.0	PRAIRIE	4800	3/30/87	0	0	0	2.9								
FISH LAKE AIRSTRIP	5550	3/30/87	82	29.6	32.1	40.0	PRAIRIE PILLOW	4800	4/01/87	---	0	0	0								
FORTY-NINE MEADWWS	4830	3/27/87	57	19.3	17.0	31.2	ROAD CREEK	5380	4/01/87	4	1.3	5.8	8.4								
GALENA SUMMIT	8780	3/30/87	46	14.0	28.8	24.4	ROBINSON CREEK RIDGE	6220	3/29/87	0	0	0	20.7								
GALENA SUMMIT PILLOW	8780	4/01/87	---	12.8	23.3	19.6	ROCK FLAT SUMMIT	5310	3/29/87	33	11.6	13.8	19.1								
GIBBONS PASS	7100	3/26/87	44	13.6	21.2	24.0	ROCK FLAT SUMMIT PILLOW	6240	4/01/87	---	13.2	25.4	25.4								
GOAT LAKE	6500	3/30/87	98	35.5	44.1	48.0	SECESH SUMMIT	6520	3/29/87	60	21.0	34.9	36.8								
GRANITE PEAK	6000	3/30/87	90	31.2	31.4	45.4	SECESH SUMMIT PILLOW	6520	4/01/87	---	20.6	32.6	37.3								
HEMLOCK BUTTE	5810	3/27/87	96	31.7	37.4	50.2	SOLDIER R.S. PILLOW	5740	3/29/87	5	2.2	11.3	10.6								
HEMLOCK BUTTE PILLOW	5810	4/01/87	---	33.8	37.5	51.0	SOLDIER R.S. PILLOW	4330	4/01/87	---	2.2	22.3	27.9								
HODDOO BASIN	6050	3/29/87	102	39.2	46.8	51.8	SQUAW FLAT	6240	3/27/87	43	16.4	25.4	27.9								
HODDOO BASIN PILLOW	6050	4/01/87	---	34.0	40.9	4															

# SNOW DATA MEASUREMENTS (cont.)

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1961-85	SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1961-85
<b>PIG WOOD, LITTLE WOOD, BIG LOST AND LITTLE LOST BASINS</b>													
							<b>WATERSHED IV</b>						
BEAR CANYON	7900	3/31/87	36	10.4	22.7	19.3	LATHAM SPRINGS	7630	3/30/87	50	18.0	35.0	33.8
BEAR CANYON PILLOW	7900	4/01/87	---	8.9	21.8	17.3	LAVA CREEK	7350	3/30/87	30	10.1	16.8	15.1
BENNETT MOUNTAIN	6560	3/29/87	29	8.9	22.8	18.1	LEWIS LAKE DIVIDE	7850	3/31/87	61	22.6	52.2	42.7
BENNETT MTN PILLOW	6560	4/01/87	---	10.3	--	20.0	LOWER PEBBLE	5780	3/26/87	17	5.4	13.8	13.4
CAMAS CREEK DIVIDE	5710	3/29/87	0	0	7.5	10.2	MAISON PLATEAU	7750	3/25/87	50	14.9	28.7	24.1
CHIMNEY CREEK	6400	3/29/87	16	5.3	15.1	13.4	MC RENOLOS RESERVOIR	6720	3/30/87	31	10.7	16.4	20.2
COPPER BASIN	7640	3/31/87	15	4.2	12.0	10.5	MINK CREEK	6410	3/27/87	32	10.9	19.8	19.2
COUCH SUMMIT	6840	3/29/87	26	7.9	22.7	18.8	MORAN	6750	3/30/87	24	8.1	15.1	12.9
DOLLARHIE SUMMIT	8420	4/01/87	46	14.0	31.6	25.4	MUD CREEK	7100	3/30/87	46	16.1	24.6	19.8
DOLLARHIE SM PILLOW	8420	4/01/87	---	14.7	34.5	26.0	NORTH PUTNAM	7240	4/01/87	47	15.9	28.8	29.0
DYI FORK	7220	3/27/87	21	6.3	20.0	16.3	PACKSAOLO SPRING	8200	3/30/87	53	18.4	35.6	30.3
FISHPOLE LAKE	9300	3/31/87	41	13.4	32.7	22.1	PEBBLE CREEK	6550	3/26/87	23	7.3	15.0	16.4
GALENA	7440	4/01/87	---	10.4E	22.8	19.0	PHILLIPS BENCH	8200	3/31/87	62	20.0	40.8	30.5
GALENA PILLOW	7440	4/01/87	---	9.8	23.1	18.8	PHILLIPS BENCH PILL.	8200	4/01/87	---	17.4	37.8	29.0
GALENA NEW	7470	3/30/87	38	11.3	25.5	21.3	PINE CREEK PASS	6810	4/01/87	28	10.2	14.9	17.8
GALENA SUMMIT	8780	3/30/87	46	14.0	28.8	24.4	POISON MEADOWS	8500	3/30/87	61	17.7	40.7	29.6
GALENA SUMMIT PILLOW	8780	4/01/87	---	12.8	23.3	19.6	PUTNAM	7220	3/26/87	35	10.5	23.3	21.4
GARFIELD R.S.	6560	3/31/87	7	2.5	9.8	10.3	SALT RIVER SUMMIT	7700	3/30/87	31	9.2	22.8	16.5
GARFIELD R.S. PILLOW	6560	4/01/87	---	4.5	13.5	10.4	SALT RIVER PILLOW	7700	4/01/87	---	7.6	21.1	16.2
GRAHAM RANCH	6270	3/30/87	23	7.1	18.2	14.5	SAWTELL MOUNTAIN	8720	3/31/87	70	23.7	42.9	36.5
HILTS CREEK	8000	3/31/87	29	7.8	14.0	11.6	SEGEWICK PEAK	7850	3/27/87	35	9.0	28.8	18.6
HILTS CREEK PILLOW	8000	4/01/87	---	8.3	15.1	13.5	SHEEP MOUNTAIN	6570	3/30/87	21	7.8	11.8	14.1
HYNOMAN CREEK	7440	3/31/87	26	8.1	17.3	14.5	SHEEP MTN PILLOW	6570	4/01/87	---	8.0	11.3	16.6
HYNOMAN PILLOW	7440	4/01/87	---	8.3	17.4	13.2	SLUG CREEK DIVIDE	7230	3/31/87	26	8.8	22.9	17.6
IRON BOG	7650	3/27/87	18	5.8	13.1	13.5	SLUG CREEK OVO PILLOW	7230	4/01/87	---	9.1	24.3	20.0
IRON MINE CREEK	6300	4/02/87	11	4.0	16.0	11.1	SNAKE RIVER STATION	6920	3/31/87	36	11.8	24.7	21.5
LEAOBELT	6700	3/27/87	12	3.9	7.6	9.4	SNOW KING MTN	7660	3/30/87	34	10.6	19.3	15.5
LEATHERMAN PASS	9860	4/01/87	60	18.6	24.6	24.8	SOMSEN RANCH	6840	3/30/87	30	9.5	18.6	15.1
LITTLE CAMAS FLAT	4940	3/29/87	0	0	0	4.0	SOMSEN RANCH PILLOW	6800	4/01/87	---	7.7	14.0	14.8
LOST-WOOD O DIVIDE	7900	3/31/87	40	12.0	30.3	24.0	SPRING CRK. PILLOW	9000	4/01/87	---	17.1	42.7	23.8
LOST-WOOD OVO PILLOW	7900	4/01/07	---	11.4	31.2	25.3	STATE LINE	6660	4/01/87	29	10.4	16.3	15.0
MASCOT MINE	7780	3/31/87	26	7.2	18.7	15.4	SULPHUR PEAK	7070	3/30/87	27	9.2	20.4	16.9
MOONSHINE	7440	3/30/87	19	5.1	8.8	10.7	TARGHEE PASS	6980	4/01/87	---	9.8E	11.2	16.1
MOONSHINE PILLOW	7440	4/01/87	---	6.3	11.7	11.4	TETON PASS W.S.	7740	3/31/87	63	21.4	36.8	26.8
MOUNT BALOY	8920	3/27/87	48	11.0	23.8	21.7	TEX CREEK	6650	4/01/87	---	4.7E	6.4	10.2
MULDOON	6320	3/31/87	4	1.2	2.7	6.9	THUMB DIVIDE	7980	3/31/87	38	10.8	27.8	21.2
SAWMILL CANYON	7000	3/30/87	15	4.5	5.8	7.9	TOGWOTEE PASS	9580	3/30/87	76	25.3	35.6	30.0
SOLOIER R.S.	5740	3/29/87	5	2.2	11.3	10.6	TOGWOTEE PASS PILLOW	9580	4/01/87	---	20.4	30.6	25.7
SOLOIER R.S. PILLOW	4330	4/01/87	---	2.2	--	--	TOPONCE	5160	3/26/87	17	5.6	7.8	17.1
STICKNEY MILL	7430	3/31/87	17	5.5	11.3	10.4	TURPIN MEADOWS	6900	3/30/87	24	9.0	10.8	10.4
STICKNEY MILL PILLOW	7430	4/01/87	---	4.2	10.7	0	WITCHELL CANYON	6300	4/01/87	29	9.2	10.2	16.9
SWEOE PEAK	7640	4/01/87	29	8.4	21.4	18.3	WYO OCEAN PILLOW	9160	4/01/87	---	19.0	--	28.8
SWEOE PEAK PILLOW	7640	4/01/87	---	8.1	20.3	16.4	VALLEY VIEW	6680	3/31/87	33	11.0	12.4	17.7
TELFER RANCH	5840	4/01/87	0	0	8.7	7.0	WEBBER CREEK	6700	3/28/87	18	4.8	6.0	6.0
VIENNA MINE	8960	4/01/87	61	21.1	48.7	37.9	WHISKEY CREEK	6800	3/25/87	42	13.1	23.2	21.8
VIENNA MINE PILLOW	8960	4/01/87	---	19.1	43.8	37.8	WHITE ELEPHANT	7710	3/31/87	S1	16.0	31.3	26.6
WET CREEK SUMMIT	7680	3/31/87	24	6.4	11.4	12.8	WHITE ELEPHANT PILL	7710	4/01/87	---	16.5	34.0	27.8
<b>WILLOW, BLACKFOOT, UPPER SNAKE AND PORTNEUF BASINS</b>													
							<b>WATERSHED V</b>						
AFTON RANGER STATION	6240	3/30/87	0	0	0	1.7	ANTEROLE RIDGE	6180	3/26/87	0	0	0	6.3
ALLEN RANCH	6470	3/30/87	18	7.2	13.4	10.4	BAADER GULCH	6660	J/25/87	25	8.8	16.1	13.5
ARI20NA	6820	4/01/87	---	10.8E	21.2	20.2	BATTLE CREEK	AM	5720	3/25/87	0	0	--
ASPEN GROVE	6500	4/01/87	---	7.8E	10.9	12.6	BEAR CREEK	7800	3/31/87	53	17.2	22.7	22.2
ASTER CREEK	7750	3/31/87	49	15.9	41.5	31.1	BEAR CRK SNOTEL	7800	4/01/87	---	14.3	22.4	33.9
AUSTIN BROTHERS RNCH	6400	3/30/87	14	4.6	11.4	8.8	BOSTETTER R.S.	7500	3/25/87	40	4.0	12.2	20.6
BASE CAMP	7030	3/30/87	41	13.0	26.5	20.7	BOSTETTER RS PILLOW	7500	4/01/87	---	10.1	19.5	18.7
BASE CAMP PILLOW	7030	4/01/87	---	11.6	21.3	18.9	BOT BASIN	AM	5460	3/25/87	0	0	--
BEAVEROAK CREEK	6120	3/26/87	10	2.7	8.0	9.7	CEOAR CREEK	6820	3/31/87	19	6.6	6.2	10.5
BIG SPRINGS	6400	3/31/87	33	12.4	19.0	21.4	CLEAR CREEK MEADOWS	9420	3/24/87	60	17.4	23.4	24.1
BIRCH CREEK	6800	3/30/87	19	6.8	6.9	11.4	DEAOLINE	7400	3/31/87	33	12.6	12.8	22.9
BLACK BEAR	7950	3/25/87	70	20.2	49.4	43.2	DEAOLINE SOUTH	7450	3/31/87	53	20.9	31.1	25.1
BLACK CANYON	7960	3/30/87	59	20.2	35.7	--	FOX CREEK	6800	3/31/87	25	8.3	6.9	10.5
BLACK MOOSE	8160	3/30/87	64	22.4	42.0	40.1	FRY CANYON	6700	3/30/87	11	3.8	5.4	6.9
BLACKROCK	8900	4/01/87	---	18.9E	26.5	22.4	GEORGE CREEK	8840	3/25/87	54	16.2	26.6	--
BLIND BULL SUMM AM	8650	3/30/87	58	18.0	35.6	27.3	GOAT CREEK	8800	3/31/87	47	14.3	19.6	19.2
BLIND BULL PILLOW	8650	4/01/87	---	15.0	44.6	26.0	GOLO CREEK	6600	3/30/87	3	0.9	1.8	S.3
BLUE LEDE MINE	6900	3/28/87	37	10.6	15.0	17.5	HOWELL CANYON	7980	3/25/87	55	18.4	40.2	26.7
BLUE RIDGE	6780	3/30/87	31	12.6	20.9	19.6	HOWELL CANYON PILLOW	7980	4/01/87	---	12.9	35.6	22.7
BONE	6200	3/30/87	9	2.9	0	0.8	HUMMINGBIRD SPRINGS	8950	3/31/87	60	18.6	28.5	24.7
BROCKMAN STATION	6430	3/30/87	19	7.5	8.0	9.2	HYDE PASTURE	AM	5760	3/25/87	0.1T	--	3.5
BRYAN FLAT	6420	3/30/87	25	6.9	10.6	9.2	JACK CREEK, LOWER	6800	3/30/87	4	1.4	0	3.3
CAMP CREEK	6580	3/27/87	18	6.2	7.2	11.6	JACK CREEK, UPPER	7250	3/30/87	26	9.3	9.3	10.4
CCC CAMP	7000	3/30/87	26	8.4	16.6	12.9	JACKS PEAK	8420	3/30/87	56	17.1	32.7	26.8
COTTONWOOD LAKE AM	7600	3/30/87	36	10.8	16.3	18.0	JOHNSTON POND	6700	3/25/87	---	0.1T	--	--
COTTONWOOD CR PILLOW	7600	4/01/87	---	14.7	25.5	--	LANGFORD FLAT CREEK	5980	4/01/87	0	0	0	5.2
COULTER CREEK	7020	3/26/87	36	11.0	25.5	22.7	LAUREL DRAW	6700	3/30/87	20	6.8	7.9	8.4
COULTER CREEK PILLOW	7020	4/01/87	---	10.5	--	--	LOGGER SPRINGS	8120	3/25/87	47	12.8	19.7	19.7
COLO SPRINGS	7000	3/26/87	39	11.4	22.8	22.9	LDUSE CANYON	AM	6560	3/25/87	0	0	0
CRAB CREEK	6860	3/28/87	33	9.5	13.5	16.7	LDUSE CANYON AM	6440	3/25/87	21	8.0	1.0	5.6
CRAB CREEK PILLOW	6860	4/01/87	---	8.8	13.7	17.2	MAGIC MOUNTAIN	6880	3/31/87	32	11.2	21.3	20.1
DARBY CANYON	8250	3/30/87	53	17.9	--	24.1	MAGIC MTN PILLOW	6880	4/01/87	---	10.6	19.1	20.1
DEMPSEY CREEK	6100	4/01/87	---	7.0E	13.6	13.0	QUINN RIOGE	AM	6300	3/25/87	9	3.6	3.2
EAST CREEK	7000	3/29/87	22	6.7	21.0	11.9	QUINN RIOGE AM	6300	3/25/87	44	4.3	--	1.1
EAST RIM DIVIDE	7930	3/31/87	36	10.6	17.0	13.3	RED CANYON	AM	6650	3/25			

# SNOW DATA MEASUREMENTS (cont.)

SNOW COURSE	EL E V A T I O N	DATE	S N O W D E P T H	W A T E R C O N T E N T	L A S T Y E A R	A V E R A G E 1 9 6 1 - 8 5
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SOUTH MOUNTAIN	6500	3/26/87	20	7.5	18.6	14.7
SOUTH MTN PILLOW	6500	/41/87	---	12.2	22.1	14.5
SUBLETT	5950	3/25/87	18	5.8	12.0	11.3
SUCCOR CREEK AM	6100	3/25/87	27	10.3	--	6.8
TAYLOR CANYON	6200	3/30/87	0	.0	.0	3.7
VAUGHT RANCH AM	5830	3/25/87	0	.0	--	1.7
VIPOINT	7670	3/25/87	34	9.8	20.0	16.5
WAR EAGLE	7280	3/25/87	36	10.8	--	23.3
WILSON CREEK	7500	3/31/87	28	10.2	10.5	13.4
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G R E A T 8 A S I N						
WAT E R S H E D VII						
BURT'S-MILLER RANCH	7900	3/25/87	18	5.1	3.6	6.0
CHRISTENSEN RANCH	5560	4/01/87	---	.0E	5.6	8.1
CLIFF CANYON	7200	3/24/87	8	1.8	3.4	10.5
CUB RIVER R.S.	5450	3/24/87	11	3.7	--	7.3
DANIELS CREEK	6270	3/24/87	9	2.2	.7	5.2
DRY BASIN	7820	3/24/87	53	15.6	36.1	30.6
DRY BREA D PONO	8350	3/24/87	31	7.7	24.9	19.5
DRY CREEK FLAT	6360	3/24/87	0	.0	.9	5.8
EMIGRANT SUMMIT	7390	3/30/87	40	12.1	37.3	25.9
EMIGRANT SUM PILLOW	7390	4/01/87	---	13.3	--	30.0
EMIGRATION CANYON	6500	3/30/87	19	6.2	12.8	11.1
FRANKLIN BASIN	8020	3/24/87	53	15.4	34.8	28.3
FRANKLIN 85N PILLOW	8040	4/01/87	---	17.4	41.3	31.8
GARDEN CITY SUMMIT	7600	3/24/87	33	7.9	24.9	18.3
GIVEOUT	6860	4/01/87	28	7.7	21.0	13.2
GIVEOUT PILLOW	6840	4/01/87	---	4.9	16.3	14.4
GIVEOUT NEW	6930	4/01/87	18	5.8	17.4	11.7
HAYDEN FORK	9400	3/25/87	46	11.2	19.5	16.0
HORSESHOE 8A5IN	8000	4/01/87	---	14.3E	31.5	28.5
KELLEY RANGER STA.	8180	3/30/87	45	12.0	28.6	18.5
KELLEY R.S. PILLOW	8180	4/01/87	---	9.3	30.0	16.4
LIBERTY SPRING	8600	3/24/87	69	21.0	57.7	40.2
LITTLE BEAVER	6790	4/01/87	30	8.6	23.5	16.2
LOWER ELKHORN	6960	3/24/87	17	5.1	15.3	14.0
LOWER HOME CANYON	7640	3/31/87	28	7.8	22.0	14.7
MONTE CRISTO R.S.	8960	3/24/87	47	13.9	32.0	25.8
MONTPELIER CREEK	6540	4/01/87	---	3.5E	9.7	8.2
OXFORD MOUNTAIN	6800	3/24/87	9	2.7	8.4	9.6
OXFORD SPRING	6740	3/24/87	8	2.5	11.9	10.7
OXFORD SPRING PILLOW	6740	4/01/87	---	1.7	11.4	12.6
SLUG CREEK DIVIDE	7230	3/31/87	26	8.8	22.9	17.6
SLUG CK DVO PILLOW	7230	4/01/87	---	9.1	24.3	20.0
STILLWATER CAMP	8550	3/26/87	35	7.7	12.3	11.0
STRAWBERRY CREEK	5820	3/30/87	0	.0	6.3	10.7
STRAWBERRY-MINK DVO	6720	3/24/87	31	9.5	28.2	22.4
UPPER ELKHORN	7140	3/24/87	35	8.8	25.8	19.7
UPPER HOME CANYON	8560	3/31/87	51	15.2	37.9	25.1
WILLOW FLAT	6070	3/24/87	23	6.9	--	15.5
WOOD CANYON DIVIDE	7450	3/30/87	34	9.9	25.1	19.8
WORM CREEK	6620	3/24/87	31	10.3	17.9	20.2

## OTHER INFORMATION

### FARMERS AND RANCHERS FACE WATER SHORTAGE THIS YEAR

Snow surveys taken near April 1 indicate that below to well below normal flows will occur on many streams across central and southern Idaho. Study this Water Supply Outlook Report carefully for streamflow and reservoir storage figures that concern your area.

Keep in touch with your irrigation district, reservoir manager, or others who monitor and regulate water supplies for estimates of the supply available to you. You may find you'll need to change crops, reduce planted acres, adjust tillage operations, or manage your livestock differently to conserve a short water supply.

Here are some water conservation tips to help make the best use of limited water supplies:

#### FARMERS

The type of crops you plant may need to be adjusted. Find out whether you will have a little water all season, or more in the spring and none later on. Vary crops accordingly. For example, alfalfa, corn and sugar beets need water all season. Wheat and barley need water early in the season.

Don't plant too early. Be sure the soil is warm enough for rapid and complete seed germination.

Consider using chemicals rather than tillage to control water-using weeds.

If you decide to plant fewer acres, plant drought tolerant cover crops on unplanted fields to protect from wind erosion.

#### IRRIGATORS

Know your soil type. This is your guide to rate and frequency of irrigation. Know precisely how fast your soil can accept water and its total water-holding capacity. This will help you decide how much water to apply at a given time.

If you have a conservation plan for your farm, or if the soil in your area has been mapped, the Soil Conservation Service can cross-check soil type and irrigation data and provide you with the water-holding capacity of your soil for a given crop.

Check your irrigation system carefully. Make certain ditches are cleared of water-wasting weeds or debris that slow delivery. Check sprinkler heads and nozzles for wear and leaks, pipes for tight connections, and valves for leaks.

Consider ditch lining or gated pipe. This will reduce the 10-90 percent loss which occurs in earth ditches.

#### DRYLAND FARMERS

Valley precipitation totals are below normal across central and southern Idaho: Soil moisture levels are below normal and good spring precip will be needed to bring moisture up to normal.

A conservation tillage system is your best protection. Leaving residues from the previous crop on the soil surface will retard runoff, increase absorption and percolation, and reduce evaporation.

Keep necessary tillage shallow. Delay spring tillage until absolutely essential to help conserve soil moisture.

Don't use turn plows or one-way discs. Use sweeps for the first necessary operation. Over-tillage will destroy residues and dry out the soil.

Use chemicals for weed control whenever possible.

#### RANCHERS

Consider adjusting livestock numbers to balance with the forage supply. Cull herds more than normal; sell calves and lambs early.

Determine forage needs and plan to buy needed supplements early.

Grow small grain for use as hay or pasture; it requires less water than conventional forage. Defer planting pasture, hay or range forage until a more favorable water year.

Check with the Soil Conservation Service and your local soil conservation district for details concerning your soil and water conservation problems. The next water supply forecast will be issued about May 1, 1987.

## The Following Organizations Cooperate With The Soil Conservation Service In Snow Survey Work

<b>State</b>	Idaho Department of Water Resources Soil and Water Conservation Districts of Idaho
<b>Federal</b>	U.S. Department of Agriculture Forest Service U.S. Department of Army Corps of Engineers U.S. Department of Commerce NOAA, National Weather Service U.S. Department of Interior Bureau of Reclamation Geological Survey, Water Resources Division Shoshone-Bannock Tribal Council
<b>Local</b>	Big Lost River Irrigation District Big Wood Irrigation Company Boise Project Board of Control Idaho Water District #01 Lewiston Orchards Irrigation District Little Wood River Irrigation District North Board of Control — Owyhee Project Salmon Falls Irrigation Company South Board of Control — Owyhee Project
<b>Private</b>	Cyprus Mining Company FMC Corporation Idaho Power Company Le Bois Resort Washington Water Power Company

Other organizations and individuals furnish information for the snow survey reports. Their cooperation is gratefully acknowledged.

UNITED STATES DEPARTMENT OF AGRICULTURE  
SOIL CONSERVATION SERVICE  
ROOM 345  
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